Applied analysis of international trade theories for automotive and agricultural sectors in terms of companies declaring concordat

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Abstract

The main purpose of this article is to examine the development of foreign trade of automotive industry of countries such as USA, China, India, Japan and Germany from 1999 to 2017 by implementing panel data analysis. The variables are export volume, automobile production capacity and agricultural production capacity. Data is obtained from the official website of the World Bank (2019) and the International Organization of Motor Vehicle Manufacturers OICA (2019). Panel data analysis is applied from 1999 to 2017 (annual data) by taking into account the automobile and agricultural production volume which are determined as independent variables and export volume is determined as dependent variable for the USA, Germany, France, China, India and Japan. According to results on the basis of Heckscher Ohlin theory, USA, Germany and France begin to switch from capital-intensive sector to labour-intensive sector which is empirically proved through panel data analysis. On the other hand, China, India and Japan enter in the process of capital-intensive (automobile industry) sector instead of labour-intensive sector (agriculture industry) which is empirically demonstrated through panel data analysis as well. When the fragmentation theory is taken into account, the western countries draw back due to the factors of lowering production costs, lowering prices and advancing in production technology in terms of know-how, which is empirically proved by PDA. Furthermore, when the fragmentation theory is taken into account, the eastern countries' strategy of dispersing into different countries in terms of production has been benefited by obtaining knowledge and technology. Therefore, they increase their market share by producing value-added goods. In the conclusion, the processes who are leading to bankrupt the companies getting into act in capital intensive sectors especially such automotive are approached through the discussion about projections of macroeconomic policies of countries.

Keywords: International Trade, Heckscher Ohlin Theory, Fragmentation Theory, Automotive Industry, Comparative Advantage Theory.

Jel Codes: P33, O24, L6, O24.

1. Prologue

While analysing the sectors occupying an important place in the world trade, automotive sector is deemed among important decision centers. While analysing the development level of a country, the magnitude of automotive sector is considered as a base among evaluation criteria. Developing countries and developed countries are ranked as different phases in regard to automotive sector. While developing countries take place into assemblage phase, developed countries take place into design and manufacturing phase (Yurdakul ve Ic, 2004).

While we are analysing the automotive sector nowadays, competition environment is critically an international level. During the years where the manufacturing technology was not so developed and the competitions environment was not in such situation while the price competition was the sole matter, nowadays the product range, quality criteria and the competition for investing to future technologies constitute the important facts with price competition. This situation has contributed to increase substantially the production volume in the entire world and to amplify the concerned commercial volume (Özdağoğlu, 2013).

The automotive sector constitutes an industrial branch which is manufacturing road vehicles and fulfilling the requirements concerning passenger and cargo transport. The automotive sector was firstly founded in USA and developed and strengthened in Europa through the leadership of France and Germany. Activities in automotive sector started with the manufacturing of first automobile before one century and during the First World War years it diversified its manufacturing through commercial vehicles and still constantly changing and creating innovation, although the automobile manufacturing takes the first place (Nakiboğlu, 2007).

World automotive sector has incurred the different structuring during 80's and thus caused to evolvements which has deeply influenced the automotive sector in the entire world. Firstly, as North American, European and Japanese markets have been already saturated, moreover the Japan has developed the advanced technologies in design and manufacturing which allowed them to get optimum advantages for contributing into search of new technologies (Karaatlı, Helvacıoğlu, Ömürbek, Tokgöz, 2012).

Likewise, automotive sector affects remarkably the competitive capacity. Because, the countries owning strong automotive companies which can be catched on the market are more likely can exhibit a more flexible attitude against global economic crisis. Because, such countries possess more economic diversity with automotive industry and they can implement more and faster growth. For the purpose of gather speed in the growth and have voice into the competitive environment, Turkey must take an important share of this sector (Özdemir ve Deste, 2009).

Automotive sector which is one of sector receiving the greatest investment spending presents according to the research made in 2013, a sum of 85 billion Euro for articles of

investment spending in the scope of research-development and manufacturing and a tax income of more than 433 billion Euro into the countries which made these investments. The automotive sector has got an endorsement of approximately 2 trillion Euros that corresponds to the countries data with the greatest economies in the world (Girginer, Çavdar, 2007).

Globalization is defined in a different ways according the opinions of various researchers. In this regard, it is possible to define globalization as an acceleration and intensification to mutual interdependence of economic and commercial activities in domestic and international area. Moreover, globalization means also that an event which can occur in one corner of the world can positively or negatively affect another corner of the world as an interregional influence. Analysing of such effect through the automotive sector which owns a gigantic global trade volume will allow to throw light on the activity of globalization in the context of international commerce. USA based automotive part manufacturers such Delphi and Visteon have been restructured the same automotive components due to the pressure by Asian, Mexican and Eastern European manufacturers which can manufacture the same components for a much lower costs. These manufacturers have made remarkable investments for research-development for the purpose of manufacturing qualified products which would provide added value to automotive industry. Volkswagen has benefited from German labour force as a condition to sustain the production domestically. Considering the oil price, USA play a significant role by taking into account the energy demand in other countries, increasing consumption in China and India has lead to redouble oil prices between 2004 and 2006. Thereby, the ongoing process and globalization have caused deep influences in determination of economic policies of states and strategies of all company in the whole world. USA National Intelligence Council points into 2020 Project Report that there is no likelihood for disappearance of some facts belonging to globalization and thus will present great consequences in the favour of the increasing in international commerce. The mutual interdependence has enlarged the reach scope for multinational companies, contributed to marketing for smaller companies and other multinational companies for marketing between their borders and brought to the international area some services (Shenkar, Luo, ve Chi).

Notwithstanding to that China and India have been generally focused on their domestic market within the scope of global automotive industry, all of them are appearing as a global actors. That situation is valid especially for Chinese automotive industry. Besides, Chinese automotive industry seems to be more competitive than South Korea. The Chinese hybrid economic system in the automotive industry allows it to be transformed to an industrial power central into the sector, as it contributed to reach a globally dominant position into other industries such toys, computer, bike and microwave oven and let it take a leader position in the world. The Chinese central political system allowed to remarkably increasing the volume of trade through the modifications that it made into the business law. Although the China remains a great advantage through low cost of production and high quantities of production, numerous Chinese automotive companies have established a corporation with foreigner companies which has accelerated the process by allowing them to acquire more know-how. Thereby, these joint adventures allowed Chinese automotive manufacturers to access more easily to know-how and knowledge on one hand and foreigner partner's access to Chinese automotive market which is potentially in growth. All of these contriburted Chinese automotive manufacturers in making

remarkably profit by means of scale-economy before entering to international market and make growing more their domestic market. China's automotive industry possesses enough infrastructure and specialists in the matter of developing an industrial capacity for manufacturing a world-bracing automobile. Consequently, China has increased the exportation of automobile by means of its growth in domestic market and reached to gigantic measures (Sardy and Fetscherin, 2009).

In recent years, the equation of gravity has been considerably extended and renewed in regard to its theoretical bases. The expanding strategy of China within the context of automotive sector is implemented by adopting the equation of gravity. Starting from a modified version of the theoretical equation developed by Anderson and Van Wincoop (2003), they made a particular underlining to trade cost. Indeed, once a company enters to the world export market, it can be faced by notably sunk costs. Consequently, before of deciding to export whether or not, a company must provide the amortization of sunk cost in the future. Thus expectations allow implementing the equation of gravity. Thusly, the fact that this equation can be obtained from Ricardian, Heckscher-Ohlin and monopolistic competition model (Shelburne 2002).

In the saturated markets, customer preference is one of most important fact in determining of sales, developments made into the product, brand value and styling a marque are increasing their own importance. The significance that Japanese manufacturer companies attach to their side industries and subsidiaries make them superior in developing of new car models (Özdağoğlu, 2013).

The USA greatest industrial company has encountered its milestone at its centesimal year during its travel which began at 16 September 1908. The company that has been affected by global crisis has declared a state of loss of 39 billion USD. This sum has been recorded at the centenary company history as the greatest state of loss declared. The crisis which began at July 2007 continued to wrap the company. Rick Wagoner, has expressed that they could sell Hummer, solely thus did not come true. George Bush, USA President expresses that short-term credit for a sum of 17.4 USD will be granted to General Motors and Chrysler which are on the brink of bankruptcy. 13.4 billion USD of that sum would be provided from bailout of 700 billion USD during months of December and January in order to prevent the bankrupt. 4 billion USD remaining would be granted provided that these companies fulfil all the conditions of loan agreement and take a step seriously in the matter of restructuring. In the case where these companies would not establish that they take concluded measures and move into profit until 31 March, so they would immediately begin to refund the debt.

After Barack Obama has become USA President, General Motors sent its message to the new administration at the end of January. The company explained that it needs of 30 billion USD. General Motors has declared that it would fire 21.000 employees in this year and would stop the production of its vehicles with marque of Pontiac. With advent of the month of May, the first quarterly balance sheet of the company has shown the loss. The total loss of General Motors has reached 6 billion USD. The revenues of the company which was 42.4 billion USD in the first trimester on the past year, has regressed to 47% and has became 22.4 billion USD.

General Motors has declared that it has split with 1.100 of its dealers at 15 May. The company had got 6.600 dealers and restricted its sales network to % 40. Obama government has provided more fund as 4 billion USD to the company at 25 May. The Government has granted a delay until 01 June for abatement of debts, reduction of employment costs and for liquidation of factory. Once 01 June has arrived, that was the end of the road for the company around 101 years. General Motors has applied for bankrupt protection and declared a concordatum.

The main purpose of this article is to analyse with detail the evolution of international trade between 1999 and 2017 in the automotive industry belonging to the countries such USA, Germany, France, China, India and Japan. The variables are export volume, production of automobile and agricultural sector. Data appearing in this article are cited through the official websites of World Bank (2019) and International Organization of Motor Vehicle Manufacturers OICA (2019). Panel data analysis has been applied and relation between variables has been implemented for USA, Germany and France. In the context of the fragmentation and Heckscher Ohlin Theory, the sectors making production with labour intensive system the capital intensive sectors have been analysed by using the panel data analysis through two empirical models for USA, China, India, Japan, Germany and France. In this context, the automotive sector which is more capital intensive and the agricultural sector which is more labour intensive have been compared and suggestions have been added in the section of conclusion by predicating on the theory of comparative advantages. In the section of conclusion, reflections of macroeconomic policies on companies have been discussed and the processes leading companies making activity into capital intensive sectors such automotive sector has been analysed in detail.

2. Literature Review

Countries including Brazil, China and Mexico have made an effort to improve their own automotive industry by the way of collaboration with technologically advanced countries such Germany and USA. Until the debut of 2000s, the countries such USA and Germany where the automotive industry is exclusively domestic have profited form advantages derived from production of automotive with high technology and dominated several markets. Moreover, India, which became also a manufacturing center for the countries which have already got their own market, raised up until 6th rank in the world as an automotive manufacturer, so they have become pioneer for radical changes into automotive industry (Thakkar ve Jain, 2018).

In recent years, the dynamic inflow of foreign direct investments into the automotive industry of countries such as the USA, China, India, Japan and Germany has encouraged the foreign trade of automotive products. The decline in trade among sectors is existed in the trade model. In this context, it is observed that the western countries such as USA, Germany and France are moving from the capital intensive sector to the labour intensive agriculture sector within the framework of Heckscher Ohlin theory. According to the empirical findings in Table 4, from 1999 to 2017, it is proved that the agricultural sector clearly affects the export volume for the USA, Germany and France rather than the volume of the automotive sector.

On the basis of the theory of fragmentation, China benefited from know-how of

western countries. Western countries produce especially in the eastern European and Asian markets in order to sell their products to relevant markets and reduce the logistics cost. However, they all decrease the volume of exports due to strong rival China. Moreover, eastern countries that had previously imported vehicles have acquired knowledge and technology and increased the production volume in the automotive industry from 1999 to 2017. As a matter of fact, the empirical findings in Table 2 clearly indicate that China, India and Japan concentrate more on the higher value added automotive production rather than agricultural sector. China and India are the countries that have surpluses in terms of trade volume, mainly due to their focus on automotive production. Especially, China has increased its automobile production capacity as twenty times and India increased its automobile production capacity as eight times from 1999 to 2017.

Automotive sector is the industrial arm of a country that manufactures have to meets passenger's and freight transport requirements. Hummels, Rapport and Yi (1998) examines the importance of trade for intermediate goods and developed a vertical specialization index in terms of fragmentation theory. According to their approach, vertical specialization occurs when a country uses imported intermediate goods in production channels to produce goods in order to export them. If the country does not export the product, outsourcing has taken place, due to vertical specialization. The fragmentation is widely used in trade theory and empirical studies for production strategy. They concludes that international integration involves the interconnection of the production process in vertical trade of various countries.

Based on the fragmentation theory, there may be increased returns through final production in terms of sequence of components that must be linked together which is stated by Jones and Kierzkowski (1990). In this context, the development of new technologies, country's bureaucracy, corruption and regulations of the country attract foreign direct investments. Labour costs and labour efficiency, transportation infrastructure and communication contribute to reduce cost of production. Jones and Kierzkowski (1990) have completed their work by taking into account all variables such as financial incentives, costs of interconnecting production blocs and the organization of service activities both nationally and across countries.

Deardorff (2001) defines the theory of fragmentation as to conduct the manufacturing process into two or more processes in different geographies in order to make production of similar product. In this context, liberalization of investment and trade volume has stated by means of research and development investments and technological advancements that fragmentation on production ways with added value is possible as well.

The production of automotive is among activities of geographically dividable character; manufacturing process is divided on different countries in different phases. That disintegration has leaded to a remarkably increase into international trade volume due the expansion on reciprocating processes in regard to processes of manufacturing. The main cause arises from the search of low cost labour force by companies. Moreover, others facts are the ratio for tax on corporations, the search by automotive company's cheaper raw material and production site. The participation of China and India to these international peak channels of production is dramatically changing since last few years (Amighin, 2012).

The theory of fragmentation, ensuring of competition environment, advancements in

sciences and technologies by means of research-development investments, generating of income by companies, possibility of passage to higher chains have all contributed to reduce the price and to hike up the production technologies. The countries which have adapted to these tough circumstances of competition have increased their trade volume and market share and brought their industrial, scientific and technological capacity into highest levels. Nonetheless, the countries which failed to adapt to the condition have been faced to losses. The advantage of the fragmentation is to be able to show that the production in different regions of certain product or output depending to the nature of fact. Indeed, in the case of fragmentation where production chains are divided into different geographies, the parts of production or output is significantly decreasing in the regions where the production costs are more favourable and thus leads to decrease the total production costs. For example, outputs belonging to the capital intensive sectors are manufactured in the regions where the capital is in abundance and outputs belonging to the labour intensive sectors are manufactured in the regions where the labour force is in abundance. Thereby, the theory of fragmentation is indicated as distribution of manufacturing process into different regions. Consequently, the vertical manufacturing philosophy is expressed in this theory clearly (Özkul, 2011).

Wad (2009) states that the progress of China and India as a great automotive markets and the integration of their automotive industry in company with low cost manufacturing plant in Asia allowed these developing countries to increase their export capacity through the increase of domestic and foreign direct investments. He moreover states, that Thailand is in growth in the automotive industry as exporter and makes more export comparing to Malaysia.

Imran, Jian, Haque, Urbański, Nair (2018) finds that the automobile industry contributed greatly to the export performance of China. The automobile industry has made significant contributions to Chinese economy. After producing approximately 24.5 million vehicles in 2015, it was emphasized that China's automobile industry emerged as the best automobile manufacturer as worldwide and reached its highest level.

Nishitateno states in his article (2013) that in Japan there is a periodical increase in export due to foreign direct investments and consistent manufacturing in automotive industry. He also states that by means of oligopolistic structure of automotive industry great investments have been made and thus reinforced the correlation coefficient between foreign trade and foreign direct investments.

Ozun and Turk point out the effects of Turkish agricultural sector on export (2010) by using GARCH model to predicate on the economical facts. They demonstrate that the correlation coefficient between trade volume and agricultural production capacity at high levels. They also establish the long term relation between export volume and agricultural sector by analysing the period in between 1990 – 2007 and making co-integration test in the form of monthly data. So, they demonstrate theorically and empirically that both export volume and import volume are affined with agricultural production, consumer price index, market capitalization of companies and international agricultural prices.

Basarir, Karli and Bilgic have established (2006) that in 90s the increase of fuel oil prices in Turkey due to Gulf War has affected from agricultural production capacity and thus

lowered the export volume. They also state that in June 1992, the Third Economic Congress of Izmir has been organized in order to solve economic problems in Turkey and according the decisions taken in this Congress the purpose of Turkish State is to situate Turkey among most developed economies in the 21th Century.

While it is approached to the matter in the context of companies which have declared a concordatum, Chrysler which is considered among “Three Giants” in USA in Detroit deemed as heart of sector, has applied for bankruptcy protection in 30 April as it didn’t overcome its problems. When the Company founded in USA at 1925 by Walter P. Chrysler has applied for the first time for bankruptcy protection at the end of 70s, it continued to its way by taking a credit of 1,5 billion USD from USA government presided by Jimmy Carter. Sales of Chrysler which was bought by German automotive Daimler-Benz for 38 billion USD at 1998 have began to decrease due the changes on customer’s preferences which are derived from the increase in fuel oil prices. As it happened in the case of GM, the Japanese companies which are manufacturing vehicles with smaller engine size and less fuel consumption instead of land vehicles with high fuel oil consumption have caused troubles to Chrysler.

Finally, Daimler sold 80.1% of Chrysler shares to the USA private investment company Cerberus at 2007. Afterwards, Daimler has broken all connection with Chrysler by renouncing its 19.9% shares which means a claim of 1.9 billion USD. The company which received a support of 4 billion USD from USA Government has applied for bankruptcy protection when it failed to put in order its circumstances. Arthur Gonzalez, judge of court which is hearing the case of Chrysler’s bankruptcy protection, has approved the sale of most of its assets to Fiat. Another automotive giant Ford has not applied for any support.

3. Methodology and Data Analysis

Panel data analysis has been applied with annual data acquired from World Bank (2019) and from OICA (2019) for the variables. In the context of Heckscher Ohlin theory, affectations of production capacities of labour force intensive agricultural sector and capital intensive automotive sector on west bloc countries with automotive sector manufacturing volume as independent variable and on east bloc countries with automotive sector manufacturing volume as dependent variable. According the comparative advantages theory by David Ricardo (1817), each country must be focused in the domain where it is specialized, so it must make a production with low costs. So, total output of world’s production will increase. Question of research: Have China and India acquired know-how for automotive production (capital intensive sector), increased export volume and what is the effect of coefficient? In order to respond these questions of research, panel data analysis has been used.

The model used for panel data analysis is;

(China, India, Japan)

Export Volume= *β0 + β1 Automotive Production Volume + β2Agricultural Production Volume* + *εi* (1)

(USA, Germany, France)

Export Volume= *β0 + β1 Automotive Production Volume + β2Agricultural Production Volume + εi* (2)

Export volume has been determined as dependent variable, automotive production capacity and agricultural production capacity for countries have been determined as independent variables. The problem of variance varying by means of different regression model for each countries and result of findings has been demonstrated.

Baltagi indicates that before of beginning to the panel data analysis, both fixed effects and random effects must be taken into consideration (2004). In order to determine the type of effect, it is necessary to make Hausman statistical test. According the result of tests made for China, India, Japan and USA, Germany, France between 1999 – 2017, fixed effects model has been selected (P <0.05, Table 1).

Table 1. Hausman Test for China, Japan and India

Correlated random effect - Hausman Test			
Data Repository			
Oblique Section Fixed Effect Test			
Results of Test	Chi-Sq. Statistic	Chi-Sq. d.f.	Probability
Oblique Section Random	9.406138	2	**0.0091**

(Significance level) value is compared with table value (α). As the probability in the Table 1 is = 0.0091 < 0.050, the hypothesis H0 is rejected. In a word, there is a fixed effect. In that case, it is necessary to estimate the model through fixed effect. Results of fixed effects for the panel data analysis are shown in the Table 2.

Empirical results obtained have shown that in the context of Heckscher Ohlin Theory, China, India and Japan have more converged to capital intensive sectors. As stated in the comparative advantages theory of David Ricardo (1817), each country must be focused in the domain where it is specialised, so it must make a production with low costs so, total output of world's production will increase. East bloc countries which possess advantages such lowness of production costs, know-how and cheaper labour force, have had the upper hand and increased their market share by producing more than USA, Germany and France and begin to give more surplus, according the data of OICA (2017).

Table 2. Panel Data Analysis for China, Japan and India (1999-2017)

Dependent Variable: EXPORT?

Variable	Coefficient	Standard Error	t-Statistic	Probability
C	4.88E+13	1.63E+13	2.997492	0.0042
AUTOMOTIVE?	-4284488.	6555131.	-0.653608	**0.5162**
AGRICULTURE?	-17.93310	178.4854	-0.100474	**0.9204**
Fixed Effects (Cross)				
_CHINA--C	4.65E+13			
_INDIA--C	-3.57E+13			
_JAPAN--C	-1.08E+13			

Table 3. Hausman Test for USA, Germany and France

Correlated random effect - Hausman Test			
Pool: PDA			
Oblique Section Fixed Effect Test			
Results of Test	Chi-Sq. Statistic	Chi-Sq. d.f.	Probability
Oblique Section Random	68.151187	2	**0.0000**

(Significance level) value is compared with table value (α). As the probability in the Table 3 is = 0.0000 < 0.050, the hypothesis H0 is rejected. In a word, there is a fixed effect. In that case, it is necessary to estimate the model with fixed effect. Results of fixed effects for the panel data analysis are shown in the Table 4.

Table 4. Panel Data Analysis for USA, Germany and France (1999-2017)

Dependent Variable: EXPORT?

Variable	Coefficient	Standard Error	t-Statistic	Probability

C	-1.50E+11	2.23E+11	-0.674138	0.5032
AUTOMOTIVE?	39104.17	35867.86	1.090229	**0.2806**
AGRICULTURE?	16.39062	1.850144	8.859104	**0.0000**
Fixed Effort				
_GERMANY--C	8.27E+11			
_FRANCE--C	8.66E+10			
_USA--C	-9.14E+11			

Results of panel data analysis indicate that, while the total production volume in agricultural sector in USA, Germany and France has increased, the export volume has also increased between 1999 and 2017 (See Table-4). Moreover, the high value obtained for r^2 coefficient proves that the model can be explained by these 3 determined variables. In the context of Heckscher Ohlin Theory, USA, Germany and France has converged to labour intensive agricultural industry compared to capital intensive automotive industry. While it is predicated on the theory of fragmentation, it has been proved by means of empirical findings that western bloc countries have entered in the way of loss, by taking into consideration facts such increasing the production costs, high prices and drawing back in the production technologies. Additionally, while taking into consideration the theory of fragmentation, the strategy of dispatching into different countries in production, has served more to the countries where they are dispatched, in regard to acquire know-how. Thereby, they did not increase their market share as the past at they did presented before us as loser countries according time-series analysis.

4. Conclusion

Dynamic foreign direct investment inflows to the Chinese and Indian automotive industries have promoted the foreign trade of automotive products. Fundamentally, the decrease of trade between sectors has also reflected into changes in trading model. In this context, it is monitored that west bloc countries such USA, Germany and France are more oriented to the labour force intensive agricultural sector rather than capital intensive automotive sector, within scope of Heckscher Ohlin Theory. Especially, findings acquired by panel data analysis prove empirically. According the empirical findings in the Table 4, by predicating in the years between 1999 and 2017, the agricultural sector has more clearly affected the export volume rather than automotive sector in USA, Germany and France.

By predicating on the theory of fragmentation, the production activities by west bloc countries in western European and Asiatic markets have both decreased the export volume and served to China who profited from their know-how. East bloc countries which have previously imported vehicles obtained the knowledge, technology and increased their production capacity much more in terms of automotive industry. As a matter of fact, China, India and Japan have been focused more on the automotive production which offers much more value added than agricultural sector. Indeed, findings in the Table 2 show clearly that situation. In the panel data analysis where the export volume is modelled coefficient as a dependent, it indicates that automotive industry affects export volume more than agricultural industry. China and India are countries which present current surplus in the balance of payments, this is because they are especially focused on the automotive production. Moreover, China has increased is production capacity approximatively 20 times from 1999 until 2017 considering the automobile sector. India has increased its production capacity approximatively 8 times from 1999 until 2017 considering the automobile sector. Comparative advantages theory of David Ricardo (1817), which asserts that each country must be focused in the domain where it is specialized, so it must make a production with low costs so, total output of the world's production will increase sharply. East bloc countries which possess advantages such as low cost of production, obtaining the know-how, cheaper labour force, have had the upper hand and increased their market share by producing more than USA, Germany and France and began to give trade surplus, according the data of OICA (2017).

West bloc countries have to adopt Japanese Kaizen philosophy and develop new strategies in order to lower costs of production. In that context, they must increase their research & development's investments to obtain new technologies. While reasoning within scope of Creative Destruction Theory of Schumpeter (1942), they must acquire new technologies in order to continue to alive among these tough conditions of competition. Although research & development's investments increase, the total production cost of the western bloc countries (USA, Germany and France) in the short term became a high level for the automotive markets through new technologies which will be faced in medium and long-term.

Consequently, misguided policies applied in USA caused bankruptcy of General Motors and Chrysler which were acting in the capital intensive automotive sector. Especially, China and India have remarkably increased their market shares of automobile industry. In the context of automotive sector, both government support and decrease of production cost without sacrificing quality have contributed to China and India to increase their market shares. American automotive companies which make stock and expensive production did not escape from bankrupt. East bloc countries which possess advantages such lowness of production costs, know-how and cheaper labour force, have had the upper hand and increased their market share by producing more than USA, Germany and France and began to give current surplus, according the data of OICA (2017). While reasoning in the context of theory of fragmentation, the strategy for making production in the eastern markets of automotive companies which are especially active in USA, has backlashed and although the logistic cost has decreased, that situation has sustained until the bankrupt by losing their market shares.

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